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10/659,067

09/10/2003

Jani Klint

915-005.069

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08/08/2005

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EXAMINER

NGUYEN, VAN THU T

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,067

Applicant(s)

KLINT, JANI

Examiner

VanThu Nguyen

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/9/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-8, 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office Action is in response to Amendment and RCE filed on June 9, 2005
2. Claims 1-2, 4-8, 10-20 are still pending.
3. Claims 3, 9 are cancelled.

Response to Arguments

4. Applicant's arguments filed June 9, 2005 have been fully considered but they are not persuasive.

Applicant argues that Gooh does not disclose a two-port RAM with first port usable for running program code, and second port usable for substantially simultaneously transmitted data between a non-volatile random access memory and the random access memory.

Examiner agrees with the above statement. However, claim 1 recites for “the random access memory comprises a two-port memory useable for running program code substantially simultaneously with the data being transmitted between said non-volatile random access memory and said random access memory”, which can be understood as the two-port memory, this memory is used for running program code and transmitting data substantially simultaneously. Language of claim 1 does not recite that two-port memory with one port useable for running program code, and other port usable for transmitting data substantially simultaneously as in Applicant's argument.

Therefore, rejections for claims 1-2, 4-8, 10-20 still stand.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 4-8, 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al. (U.S. Patent Application No. 2002/0185337) in view of Gooch (P.G. Pub. No. 2003/0182517).

Regarding claim 1, Miura et al. disclose, in FIG. 1, a memory circuit comprising at least a non-volatile random access memory (FLASH), a random access memory (DRAM), and a memory controller (CTL_LOGIC) which is connected by a first bus (all lines from CTL_LOGIC to FLASH) to the non-volatile random access memory and by a second bus (all lines from CTL_LOGIC to DRAM) to the random access memory, wherein data can be transmitted between said non-volatile random access memory and random access memory via the memory controller, and which memory circuit further comprises a control bus (all lines on the left of CTL_LOGIC) connected to the memory controller, to control the operation of the memory circuit; wherein the random access memory is usable for running program code substantially simultaneously with the data being transmitted between said non-volatile random access memory (FLASH) and said random access memory (DRAM) (running Web browser and transfer music data to FLASH, see paragraphs [0073] and [0313]).

However, Miura et al. do not disclose the random access memory comprises a two-port memory.

Gooch discloses, in FIG. 1, a two-port RAM comprising first port connected to bus transmitting signals D1-W2, and second port connected to bus transmitting signals D2-W2.

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Since Miura et al. and Gooch are both from the same field of endeavor, the purpose disclosed by Gooch would have been recognized in the pertinent art of Miura et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use multi-port RAM between controllers for the purpose sharing computational resources.

Regarding claim 2, Miura et al. disclose, in FIG. 2, said memory controller comprises means for generating control signals for writing in and reading from the non-volatile random access memory, as well as means for writing in and reading from the random access memory (FGEN and COM_GEN, respectively).

Regarding claim 4, Gooch discloses, in FIG. 1, a two-port RAM comprising first port connected to bus transmitting signals D1-W2, and second port connected to bus transmitting signals D2-W2.

Regarding claims 5-6, Miura et al. also discloses said non-volatile random access memory being a flash memory; and said random access memory being a DRAM type.

Regarding claims 7-8, 12-13, they are rejected under U.S.C. 102(e) since they recite the same limitation as in claims 1-2, 5-6.

Regarding claim 10, they are rejected under U.S.C. 103(a) since they recite the same limitations as in claims 4.

Regarding claim 11, FIG. 1 of Miura et al. also shows that all lines on left of CTL_LOGIC are used for transmission of commands (such as from CLK ... WAIT) and data (such as DQ0-DQ15).

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Regarding claims 14-18, Miura et al. further discloses, beside claimed limitation in claims 7-8 and 11-13, a processor (CPU, see FIG. 45).

Regarding claim 19, Miura et al. also disclose the memory controller comprises means for refreshing the dynamic random access memory (see paragraph [0016]).

Regarding claim 20, it encompasses the same scope of invention as to that of claim 1 except it drafts in method format instead of apparatus format. The claim is therefore rejected for the same reason as set forth above.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881.

The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

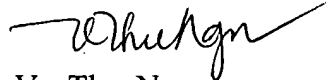
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 27, 2005


VanThu Nguyen
Primary Examiner
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